

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing of claims in the Application:

Listing of Claims:

1. (original) A method for use in apparatus of a communications system, the method comprising the steps of:

decoding block encoded data for removing the block encoding from the data;

mapping the data into a variable length protocol data unit (PDU) for transmission over a synchronous transport medium.

2. (original) The method of claim 1 wherein the PDU comprises a header portion and a payload portion and includes a type field representing whether the data represents a data frame or a control frame.

3. (original) The method of claim 1 wherein the transport medium is bit/byte synchronous.

4. (original) The method of claim 1 wherein the transport medium is a synchronous optical network (SONET).

5. (original) The method of claim 1 wherein the mapping step maps the data into a simplified data link (SDL) PDU.

6. (original) The method of claim 1 wherein the decoding step further comprises the steps of:

- receiving a fibre channel (FC) signal representing the block encoded data;
- and
- decoding the FC signal for removing the block encoding from the data.

7. (original) The method of claim 1 wherein the decoding step further comprises the steps of:

- receiving an enterprise systems connection (ESCON) signal representing the block encoded data; and
- decoding the ESCON signal for removing the block encoding from the data.

8. (original) A method for use in communications apparatus, the method comprising the steps of:

- (a) receiving a signal representing block encoded data;
- (b) decoding the receiving signal for removing the block encoding from the data;
- (c) determining whether the data represents, at least, a control frame type or a data frame type;
- (d) comparing the determined type to a type of previous data, which represents at least one previously decoded block of data;

(e) if the determined type is different from the type of previous data, formulating the previous data into a variable length payload data unit (PDU) for transmission over a synchronous transport medium; and

(f) if the determined type is not different from the type of previous data, storing the data in a buffer.

9. (original) The method of claim 8 wherein step (f) includes the steps of:

determining if the buffer is full; and

if the buffer is full, formulating the buffered data into a variable length PDU for transmission over the synchronous transport medium.

10. (original) A method for use in apparatus of a communications system, the method comprising the steps of:

receiving a signal from a synchronous transport medium, wherein the signal represents information conveyed in a variable length protocol data unit (PDU);

decoding the PDU by examining a type field of the PDU, wherein the type field indicates whether data in a payload portion of the PDU represents either a data frame or a control frame; and

block encoding the data for transmission.

11. (original) The method of claim 10 wherein the transport medium is bit/byte synchronous.

12. (original) The method of claim 10 wherein the transport medium is a synchronous optical network (SONET).

13. (original) The method of claim 10 wherein the block encoding step further comprises the step of forming a fibre channel (FC) signal representing the block encoded data.

14. (original) The method of claim 10 wherein the block encoding step further comprises the step of forming an enterprise systems connection (ESCON) signal representing the block encoded data.

15. (original) Apparatus for use in a communications system, the apparatus comprising:

a decoder operative on block-encoded data for removing the block encoding from the data; and

a mapper for mapping the data into a variable length protocol data unit (PDU) for transmission over a synchronous transport medium.

16. (original) The apparatus of claim 15 wherein the PDU comprises a header portion and a payload portion and includes a type field representing whether the data represents a data frame or a control frame.

17. (original) The apparatus of claim 15 wherein the transport medium is bit/byte synchronous.

18. (original) The apparatus of claim 15 wherein the transport medium is a synchronous optical network (SONET).

19. (original) The apparatus of claim 15 wherein the mapper maps the data into a simplified data link (SDL) PDU.

20. (original) The apparatus of claim 15 wherein the decoder is operative on a fibre channel (FC) signal representing the block encoded data, and decodes the FC signal for removing the block encoding from the data.

Claims 21-24 (canceled).

25. (currently amended) An apparatus for use in a communications system, the apparatus comprising:

means for producing a ~~A~~-transmission frame representing data embodied in a signal conveyed over a synchronous transport medium, the transmission frame comprising:

a variable length packet, the variable length packet comprising:

a header, which includes at least a length field indicative of a length of the variable length packet;

a type field representing a type of data conveyed in a payload portion of the packet, wherein the type is, at least, either a data frame or a control frame; and the payload portion for conveying the data.

26. (original) The apparatus of claim 25 wherein the header includes an error correction field.

27. (currently amended) An apparatus for use in a communications system, the apparatus comprising:

means for producing a A transmission frame representing data embodied in a signal conveyed over a synchronous transport medium, the transmission frame comprising:

a variable length packet , the variable length packet comprising:

a header, which includes at least a length field indicative of a length of the variable length packet;

a type field representing a type of data conveyed in a payload portion of the packet, wherein the type is, at least, either a fibre channel (FC) data frame or an FC control frame; and

the payload portion for conveying the data.

28. (currently amended) An apparatus for use in a communications system, the apparatus comprising:

means for producing a A transmission frame representing data embodied in a signal conveyed over a synchronous transport medium, the transmission frame comprising:

a variable length packet, the variable length packet comprising:

a header, which includes at least a length field indicative of a length of the variable length packet;

a type field representing a type of data conveyed in a payload portion of the packet, wherein the type is, at least, either an enterprise systems connection (ESCON) data frame or an ESCON control frame; and

the payload portion for conveying the data.